

EXHIBIT 30

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application

Inventors: Mark H. Smit, *et al.*
Appln. No.: 13/366,905
Confirm. No.: 5678
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Title: SYSTEM AND METHOD FOR
ASYNCHRONOUS CLIENT SERVER
SESSION COMMUNICATION

PATENT APPLICATION

Art Unit: 2447
Examiner: Unassigned

Customer No. 23910

PRELIMINARY AMENDMENT UNDER 37 C.F.R. § 1.115

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Prior to examination, please amend the above-referenced application as follows:

Amendments to the Claims begin on page 2.

Remarks/Arguments begin on page 11.

AMENDMENT

Please amend the above-identified application as follows:

Amendments to the Claims:

Please cancel claims 1-27 and add new claims 28-64.

28. (New): A system comprising:

a server system, including one or more computers, which is configured to receive query messages from a client object, the server system asynchronously receiving and responding to the query messages from the client object over a network;

the client object that, while a user is providing input comprising a lengthening string of characters, sends query messages to the server system;

whereby the query messages represent the lengthening string as additional characters are being input by the user; and

wherein the server system, while receiving said query messages, uses the input to query data available to the server system and send return messages to the client object containing results appropriate for the input; and

wherein, upon receiving a return message of the return messages from the server system, the client object tests the usability of the results in the return message by checking that the return message corresponds to the latest query, and if usability is established, the client object displays or returns at least some result data to the user.

29. (New): The system of claim 28, wherein, upon testing the usability of the server system results, at least some result data is displayed as an auto-completion inside of an input field.

30. (New): The system of claim 28, whereby the lengthening string is entered into an input field, and wherein upon testing the usability of the server system results, at least some result data is displayed in a separate area that is associated with the input field or that pops up near said input field.

31. (New): The system of claim 28, whereby the lengthening string is entered into an input field, and wherein one or more symbols displayed inside of the input field indicate(s) to the user one or more of whether or not said system is present, whether the system is available for use, the current state of the system, whether a query has been sent to the server system, whether more results are available, whether a previous result is available, whether a next result is available, or whether the current result is the only available match.

32. (New): The system of claim 28, wherein the server system sends return messages to the client object containing results both appropriate for the input and associated with a string contained elsewhere on the same client object to which the input has a predefined dependency.

33. (New): The system of claim 28, wherein the server system retrieves the results from one or more of a database, a search and retrieval system, a thesaurus, a reference work, an address book, a control system, a dictionary, an encyclopedia, a products database, a quotes library, a stock quote system, a news service, internet advertisements, a catalog, a complex function, a translation engine, a classification scheme, a lookup list, an auto-complete history, an algorithm, a directory, a search engine, a database retrieval engine, or a cache.

34. (New): The system of claim 28, wherein the server system caches query results and subsequently determines results by looking up the query in said cache so that it can avoid performing a query for the same input on a data source or looking up said query in a second cache.

35. (New): The system of claim 28, wherein the client object transmits an associated query message to the server system upon each detected change to the input.

36. (New): The system of claim 28, wherein the client object accumulates input before transmitting an associated query message to the server system.

37. (New): The system of claim 28, wherein the client object combines the input string with additional information, whereby said additional information includes one or more of an indication of whether or not results should be sorted, whether results should be appropriate for both the user input and a qualifier, how many results should be returned, or which selection of results should be returned.

38. (New): The system of claim 37, whereby said qualifier identifies a user to the server system whereby the server system returns messages containing results appropriate for said user.

39. (New): The system of claim 28, wherein the results returned by the server system include suggestions for the user input; and
wherein these suggestions change dynamically while the user is providing input.

40. (New): The system of claim 28, wherein selections of results returned by the server system are related to the user input through predefined relationships; and
wherein an indicator of the corresponding relationship is displayed or returned alongside each of said result selections.

41. (New): The system of claim 40, wherein said relationships are organized according to a dictionary or thesaurus system that includes one or more of broader term relationships, narrower term relationships, related term relationships, synonym relationships, used-for term relationships, meaning relationships, or uses relationships.

42. (New): The system of claim 28, wherein results returned by the server system comprise result sets consisting of zero or more string values.

43. (New): The system of claim 28, wherein results returned by the server system comprise a set of zero or more results;

wherein each result consists of one or more of a string, key, fetch time, expiration time, metadata, logical link to other data sources, or a Uniform Resource Identifier.

44. (New): The system of claim 28, wherein the client object determines the usability of each server system response by comparing an original input to a then-current input; and
wherein the client object deems the results usable if they match.

45. (New): The system of claim 28, wherein the query message sent to the server system includes a request identification that is included by the server system in the corresponding server response message.

46. (New): The system of claim 45, wherein the usability of a server system response is determined by the client object by matching the request identification received in the server response message against a request identification on the client.

47. (New): The system of claim 28, wherein the client object caches results received from the server system and reuses said cached results when new queries match queries contained in the cache or if cached query results can be filtered to match the new queries, instead of sending messages representing those new queries to the server system.

48. (New): The system of claim 28, wherein one or more filters are used to validate or transform the input string using a type, pattern, or minimum length; and
wherein no query is performed if the input string is found not to conform to or does not transform using said type, pattern, or minimum length.

49. (New): The system of claim 28, wherein the server system is capable of returning results from multiple data sources;

wherein the client object selects which of the available data sources at the server system is to be queried; and

wherein the system selects one or more data sources based on a name associated with

each data source, on types of queries accepted by each data source, or on string types that can be returned by each data source.

50. (New): The system of claim 28, wherein the input on the client object represents speech and is generated by a sound conversion engine

51. (New): The system of claim 28, wherein return messages include suggestions and related data relevant to the suggestions, and wherein the related data is displayed in a user selectable manner; wherein a selection of the related data displayed to the user causes additional data to be obtained from the server system and be displayed.

52. (New): The system of claim 28, wherein the client object is run by a web browser.

53. (New): The system of claim 28, wherein the client object is run on a mobile device.

54. (New): The system of claim 28, wherein the client object tests the usability of the results in the return message by matching an ID for the user query.

55. (New): The system of claim 54, wherein the client object tests the usability of the results in the return message by matching an ID included in one of the query messages sent to the server system and returned as part of the return message.

56. (New): The system of claim 28 wherein the client object uses a pre-defined query and automatically transmits a corresponding message to the server as the client object is first run, and wherein user input is not required before server responses are sent to the client object.

57. (New): The system of claim 28, wherein the server system automatically sends messages containing new results to the client object as updated data appropriate for a previous query becomes available.

58. (New): The system of claim 28, wherein the client object automatically repeats a query to retrieve updated information from the server system.

59. (New): A system including at least one computer comprising:

a server system using a communication protocol that enables asynchronous communication between the server system and a client object;

the client object that, while a user is forming a query comprising a lengthening string of characters, sends query messages representing the query to the server system; and

wherein upon receiving corresponding result messages from the server system, the client object tests the usability of each result message by checking that the return message corresponds to the latest query, and if usability is established, provides feedback to the user based on the contents of the result message.

60. (New): The system of claim 59, wherein the client object is run using a web browser.

61. (New): The system of claim 59, wherein the client object is run on a mobile device.

62. (New): A system comprising:

a client object adapted to receive input comprising a lengthening string of characters from a user, the client object asynchronously sending multiple queries corresponding to multiple versions of said input to a server system while a user modifies the input, the client object receiving return messages with results appropriate for the multiple versions of the input;

wherein upon receiving one of the return messages from the server system, the client object checks the usability of the results of the one of the return messages using a more recent version of the input to determine whether to display at least some of the results of the one of the return messages to the user.

63. (New): A system comprising:

a server system, including one or more computers, which is configured to receive query messages from a client object, the server system asynchronously receiving and responding to the query messages from the client object over a network;

wherein the client object, while a software process is providing input comprising a lengthening string of characters, sends query messages representing said input, to the server system;

wherein the server system, while receiving said query messages, uses the input to query data available to the server object and send return messages to the client object containing results appropriate for the input;

wherein, upon receiving a return message of the return messages from the server system,

the client object tests the usability of the results in the return message by comparing the return message to the then-current input or matching it with a request identification maintained on the client object, and if usability is established, the results are returned to the software process.

64. (New): A system comprising:

a server system, including one or more computers, which is configured to receive query messages from a client object, the server system asynchronously receiving and responding to the query messages from the client object over a network;

the client object that, while a user is providing input comprising a lengthening string of characters, sends query messages representing said input to the server system;

wherein the server system, while receiving said query messages, uses the input to query data available to the server system and send return messages to the client object containing results appropriate for the input; and

wherein, upon receiving a return message of the return messages from the server object, the client object tests the usability of the results in the return message by matching an ID associated with the input sent to the server system with an ID maintained in the client object, and if usability is established, the client object displays or returns at least some of the result data to the user.

Remarks:

This Preliminary Amendment is being filed prior to the mailing date of a first Office Action on the merits. Applicant respectfully requests that, prior to examining the above-identified application, the Application be amended as shown herein to cancel claims 1-27 and add new claims 28-64.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this Preliminary Amendment.

Respectfully submitted,

Date: July 23, 2012

By: /Joseph P. O'Malley/
Joseph P. O'Malley
Reg. No. 36,226

Customer No. 23910
FLIESLER MEYER LLP
650 California Street, 14th Floor
San Francisco, California 94108
Telephone: (415) 362-3800